

The Anchorage Amateur Radio News Bulletin

January, 1994

Anchorage Amateur Radio Club Newsletter
Editor - Harvey Rookus, NL7DK

Vol. 23, No. 1

Inside

Page 2

AARC December
Technical Report

Calendar

Page 3

AMSAT Letter

Page 4

Minutes

Christmas Party

Page 5

Essay On Nikoli
Tesla, Genius

Page 6

VEC Report

Page 7

Treasurer's 1994
Budget - Income

Page 8

1994 Budget - Expenses

Page 9

Club Information

Alyeska Resort Offers AARC Repeater Site For Girdwood & Hope

The new Alyeska Ski Resort owners have offered a site for a repeater at the top of their ski lift. The offer came after Bob Baker, NL7UH mentioned to the new owners just how many Japanese amateur radio operators there are. The offer of space also includes an offer to mention AARC's sponsorship of the repeater in the resort's advertising brochures.

Doug Dickinson, KL7IKX, Chairman of the Technical Committee, has already done a topographical site analysis and prepared a statement of technical requirements for the proposed project. From the Ski Patrol building at approximately 2,300 feet above sea level, a 6db gain vertical antenna would cover the Girdwood area and should also provide good coverage across the inlet to Hope. Coverage of the Hope area would satisfy a commitment the club has made to the community for repeater service.

The Technical Committee is recommending the purchase of a 25 watt ICOM repeater package and the use of an omnidirectional antenna of only 6db gain. Their topographical analysis indicates that a higher gain antenna would produce unwanted nulls down in Girdwood and would actually provide poorer service than proposed.

The recommendation of a new repeater package was made for several reasons. If we are to take advantage of the resort's offer, we need to have an installation that is quick to complete, neat in appearance, and of higher reliability than conversion projects.

The proposed cost for the package is \$3,500 and the Board of Directors voted to take the request to the membership at the January meeting for final approval by the membership.

Search Continues For KL7AA Club Station Site

The search for a KL7AA club station site continues. After the presentation of the final \$16,000 check to Alaska Pacific University for the scholarship fund, a friendly suggestion was made to APU Vice President Albert J. Alvarez for an alternative use of the KSKA radio studios.

Club President, Richard Mote, AL7MO, pointed out that KSKA's plans are to eventually move their operation into an expanded KAKM studio building and

(Continued on page 9)

January 7th Meeting: Getting Started With Satellite Radio

December Report From The AARC Technical Committee

by Doug Dickinson, KL7IKX

A unique opportunity has been presented to us. the owners of Alyeska ski resort, have asked if we would be interested in installing a repeater at their Ski Patrol headquarters located at about the 2,300 foot point of the mountain. a heated secure building with emergency power is available. A short tower section on which to mount our antenna is also available.

This repeater would allow visitors to the ski resort to communicate with each other, as well as allow for emergency communications in the local area. Computer generated plots of the coverage of the site, show that while there is no direct path to Anchorage, there is certainly a good coverage of the Alyeska area, and south toward the pass. As well as coverage to the Sunshine and Hope areas. The Hope repeater now being built up by AL7LD could easily be linked to this repeater to extend the range both along the highway toward Alyeska, and north into Anchorage.

This repeater would serve both the ARES/ADRS community, and the general amateur user. Providing emergency communications when other means have been taken out of service due to snow avalanche.

Due to the time constraints, and the workload already present to the AARC Technical Committee, I propose that we use a "store bought" system. The reason is two-fold.

First, we get a good looking

package, free of extra wires and things that we as amateurs sometimes expect in homebrew'd projects, such as extra wiring, and home made containers. While we as amateurs appreciate this type of installation, a non-amateur may be taken aback and not be happy with the general look of the system. Second, we save the technical committee the time and effort required to build up another repeater.

The owners have indicated that they are more than willing to provide the AARC with a tag in the brochure that is distributed not only locally, but world-wide, that the repeater system is provided by the Anchorage Amateur Radio Club. Which certainly would provide a good reference for our public service activities.

What I propose is the following equipment, to be installed in a locking cabinet. and then installed at the Ski Patrol building. (Alyeska will provide lift passes for us to accomplish work at any time, along with transportation for the equipment to the site.)

One ICOM 25 watt VHF Repeater with CW ID controller installed. One Sinclair or equivalent Duplexer set. One Scala OG-4 Vertical antenna with 14 degrees downhill built in. And one DB products Z-matcher, this assures that any icing changes on the antenna are not reflected back to the transmitter. Helping to assure a clean output from the transmitter.

Overall cost for this project would be in the order of \$3,500.00 or less. This money is available from our gambling account. Money that is earmarked and required for public

service type activity.

In addition, a packet Node is proposed to be installed in the same enclosure to extend digital communications down the arm. the packet equipment is already owned by the AARC and would cost nothing to install in the same cabinet. Heliac for the repeater is already owned by AARC. The antenna for the packet system, might be needed to be purchased, but more than likely is already in our inventory.

Calendar

JANUARY, 1994

Meeting 7th
Board Meeting 12th

FEBRUARY

Meeting 4th
Board Meeting 9th
Fur Rondy 11th - 20th

MARCH

Meeting 4th
Iditarod 5th
Board Meeting 9th
Great Alaskan QSO Party

APRIL

Meeting & Nominations Due
on the 1st (Not a Joke)
Board Meeting 13th

MAY

Meeting 7th
Board Meeting 11th
Voting By Mail

AMSAT Seeks Funds For Fiscal 1994 Phase 3D Development Costs

The following is an excerpt of a letter sent out by AMSAT, the Radio Amateur Satellite Corporation, to their members in December, 1993. AMSAT needs to raise an additional \$200,000 in contributions for planned expenditures this year on the Phase 3D satellite project. At the December board meeting, a contribution to AMSAT was suggested as one of the ways we can put gaming revenues to good use on during the coming year.

Dear Fellow AMSAT Member:

Two years ago you [may] have received a letter telling about Phase 3D, what it will do for Amateur Radio and how it must have the support of all AMSAT members.

Phase 3D will not only mean easy access to satellite communication for virtually every ham in the world. With its onboard 2 meter transmitter and 70 cm receiver, it will form what we now call Mode B on AO-10 and AO-13. Furthermore, its 2 meter receiver and 70 cm transmitter can be connected to form what we now call Mode J. This flexibility will allow the satellite to work in either fashion. So, our current satellite transceivers and antennas will be able to be used in two ways. In addition, Phase 3D will provide an incentive for us to try new modes and higher frequency bands. Since we were relegated to wavelengths below 200 meters, amateurs have

always reached higher and higher in the radio spectrum. We must not stop now. Our assignments in the microwave bands may turn out to be some of the most valuable territory we have. The commercial interest are already well aware of the worth of this part of the spectrum.

Work is already beginning on the construction of actual flight structural hardware and electronic modules. This follows the completion of an engineering model spaceframe. Here in the US, procurement of critical and expensive items such as solar arrays, batteries and heat pipes have been initiated. These, along with the building of the flight spaceframe will require the expenditure of some \$400,000 in 1994 alone. Many of the electronic modules are being built in Europe from funds raised there. The very interesting Japanese camera experiment is being financed by money raised in that part of the world. the structure and power system are our responsibility here in the Americas. It goes without saying that you can't have a satellite without these vital elements.

We have now raised just under \$200,000. Not bad from a relatively small of individual donors, but we can, and must, do much better. Of the approximately \$4.5 million, estimated to be needed to build and launch Phase 3D, it was expected that one-third, or \$1.5 million, would come from the Americas. Of the \$200,000 we have raised so far, some has already been spent.

Approximately \$400,000 is committed to be spent in 1994 alone. Additional funds will be required in 1995 and the launch year, 1996. Yes, we have a long way to go. Of course, the ARRL has raised another \$185,000 or so. But this is being reserved to help cover launch costs that most assuredly will be coming. It will only be used for other purposes in a dire emergency.

I am [appealing to fellow amateurs to contribute] to Phase 3D. Be assured tht your help can make a real difference. As you can see, we have a long way yet to go in securing suficient funds o insure the completion and launch of this marvelous new satellite, which should serve the Amateur Radio community well into the next century.

Your help is vital to making Phase 3D a reality.

73, William A. Tynan, W3XO
President, AMSAT

[Editor's note: AMSAT is a 501(c)(3) non-profit organization and contributions to the projects by US taxpayers who itemize deductions may qualify as deductible charitable contributions; however, consult a qualified tax expert before taking any such deductions. Participating membership in AMSAT is \$40 per year; Supporting membership is \$70; Sponsor membership is \$100; Patron membership is \$200; Benefactor membership is \$500 and Leadership level is \$1,000 per year]

From The December Minutes

By NL7NN, Susan Woods

At approximately 6:30 PM on Wednesday, December 8th, an exchange took place between two organizations. On the third floor of Grant Hall, in an art room that sometimes doubles as a Chemistry lab, met APU Vice President Albert J. Alvarez, and Richard Mote, President of AARC and a number of Board members. The room was dedicated to the AARC and a bronze plaque of dedication is posted outside the door.

The December 8th board meeting of the Anchorage Amateur Radio Club, Inc. was brought to order at approximately 7:15 PM. Those present were AL7MO, Richard Mote, President; AL7NK, Joan Beller, Vice President; NL7NN, Susan Woods, Secretary; NL7NC, John Lawson, Treasurer; NL7N, Simon Carraway, Activities Manager; AL7BK, Lance Dunbar, 3-year Board Member; and 1-year Board Members, NL7DL, Lillian Marvin; WL7BF, Paul Spatzak; W17EC, Gill Jones; AL7PB, NL7DK, Harvey Rookus; and Mel Saunders. Others present were KL7IKX, Doug Dickinson, Chairman - VHF Committee; KL7HFQ, Roger Hansen, Chairman - VEC Committee; NL7XE, Charlie Moore; and NL7UH, Bob Baker, Sr.

Bob Baker, NL7UH, has been looking into the possibility of placing a repeater at Alyeska Ski Resort. The repeater would live in the new building next to the old Round House. Because this location is in plain view and is expected to get a large amount of foot traffic, the VHF Committee is requesting that AARC purchase a new "all-in-one-box" repeater. The electrical 'view' is quite good from the proposed site. A motion was made to seek approval of AARC's membership-

at-large to spend approximately \$3,600 for a repeater at Alyeska Ski Resort. Motion was approved.

The budget was discussed. With minor changes, it will be presented for approval by the membership-at-large of the Anchorage Amateur Radio Club, Inc.

Charlie Moore, NL7XE, came to the board meeting with an idea of building an amateur radio station at the Anchorage Senior Center. The idea is that this equipment

could be used by anyone holding an amateur radio operator's license. The station could be built over time. The board decided that it was worth looking into a little further.

The meeting ended at approximately 9:15 PM.

Respectfully submitted,

Susan J. Woods, NL7NN, AARC Secretary

1994 Christmas Party Minutes

The Anchorage Amateur Radio Club held their annual pot-luck on the Third of December. It was held at the Atwood Center. Decorating started at 5:30 PM with the help of some helpful draftees!

The eating began at 7 PM and there was plenty. After the eating was completed, the raffle prizes were awarded. First prize of a Kenwood TS-50S HF transceiver, went to KL7BW. Second prize, an ICOM IC-229H mobile FM transceiver, went to WL7FQ. Third prize went to KL7IWF, who won an ICOM IC-2IA FM handheld.

Christmas carols were sung by one and all. Santa himself could not be there, but he did leave a bag of toys for the children. The eating and socializing were done in equal portions!

Merry Christmas and Happy New Year!

Respectfully submitted by Susan J. Woods, NL7NN, AARC Secretary.

The Anchorage Amateur Radio News Bulletin is the monthly newsletter of the Anchorage Amateur Radio Club. Permission is granted for reproducing articles appearing in the Anchorage Amateur that do not indicate a copyright separate from the Anchorage Amateur Radio Club.

Letters to the Editor and articles for publication should be submitted to Harvey Rookus, NL7DK, 3310 Checkmate Drive, Anchorage 99508. Telephone number (907) 333-4693. Articles and Notices for the paper should be typewritten or on IBM compatible formatted computer disks (5.25 or 3.5 inch). Graphic illustrations for articles are also welcome. Deadline is the 20th of each month.

Nikolai Tesla, Genius

The following is from "Current Notes", and was submitted by Dave Evans - AL7JZ

Eric Does Nikola
(c) 1992 by David Small

Last year, my son Eric, who just turned 10, had a school project called "Famous Person's Tea." This is a yearly event in which each student selects a Famous Person from history, dresses as that person, and gives a 10 minute memorized on-stage speech about that person. So my son came to me and said he was having trouble picking a Famous Person. "Dad, who do you think is the most famous person? Without a moments hesitation, I said, "Nikola Tesla." Here is why.

Nikola Tesla

99% of the people in the world have never heard of Tesla. The remaining 1% hold him in the highest of respect. Let me tell you why.

Tesla did his work in the late 1800's. Among other things, Tesla invented and helped market, over Tom Edison's strong objections, Alternating Current, A.C. current as it is called. Edison wanted D.C. current. Because Tesla won, you have the electricity you're used to, at your house and office, and you have computers. A.C. can be sent thousands of miles, stepped up and down in voltage, sent very efficiently (via Tesla's invention, 3-phase power.) Tesla holds the invention/patents for things like A.C. generators, transformers, the A.C. motor (think of every motor in your house), and so forth.

Did I mention Tesla invented radio? Most people think Marconi did this; in 1943 the Supreme Court ruled Tesla's patent overrode Marconi's. By this time Tesla was gone, which will tell you all I think about the pace of the law. In the early 1900's he demonstrated radio-controlled ships to the Navy, for instance.

Tesla was from Serbo-Croatia, thence called Yugoslavia, and now, most sadly, in the midst of a civil war to split back to Serbo-Croatia. (There is a highly regarded Nikola Tesla Museum in Belgrade; it is among my dearest wishes to visit it!! He is a national hero there, justly.) Tesla came to the United States to work for Edison with this recommendation from the Paris office of General Electric:

"Dear Mr. Edison:

There are two real geniuses in the world. You are one. The young man who gave you this letter is the other.

Tesla did a job for Edison and was offered a \$25,000 bonus if he could first do it (it was regarded as impossible) and second, do it fast. It was soon complete, and Edison, who made sure not to put the promise in writing, didn't pay; he simply said, "You don't understand our American humor Tesla."

This article will be continued next month with a description of how Tesla turned the tables on Edison.

ARRL Says Alaska Is Running Out Of Preferred Callsigns; Proposes Changes To FCC

Available preferred callsigns for Extra class licensees (Group A) have run out in Puerto Rico, Alaska and Hawaii, and such callsigns are about to run out for the Advanced class (Group B) in Hawaii.

On November 4th, at the direction of the ARRL Executive Committee, the ARRL General Counsel sent a letter to the FCC with a proposal to alleviate the shortage of preferred callsigns.

The proposal to the FCC would make more preferred callsigns available in Alaska, Hawaii and Puerto Rico.

It suggests making numerals other than "7" available in Alaska, adding "3" to Puerto Rico, and using a plain numeral "7" in Hawaii. Kure Island would retain a distinctive suffix even though it is part of the State of Hawaii.

[Editor's note: this sounds like a response from the ARRL to our club president's long running proposal to solve the Alaskan callsign problem.

AL7MO suggests that Alaska leave the union and join Canada. Once in Canada, he says we would have our pick of all of the exotic suffixes in use there, beginning with VY3 or VY7, or one of the other callsigns they've been using on special occasions.]

November VEC Test Results

	CALL	FROM	TO
ANCHORAGE			
TERRY T. ALBERT		NO LICENSE	N.C. TECH
VERONICA ALLMARAS		NO LICENSE	N.C. TECH
JANET L. BOLVIN		NO LICENSE	H.F. TECH
CHRIS F. BROSH		NO LICENSE	N.C. TECH
SALEE V. GOODMAN	WL7HL	GENERAL	ADVANCED
GERALD P. HALLGRIMSON	NL7YH	GENERAL	ADVANCED
DEAN H. RAVIN		NO LICENSE	H.F. TECH
ROBERT S. ROBINSON	WL7LB	N.C. TECH	H.F. TECH
JAMES B. STEWARD	WL7HZ	N.C. TECH	H.F. TECH
GERRIANNE O. THORSNESS		NO LICENSE	N.C. TECH
JAMES M. WIEDLE	WL7NO	N.C. TECH	H.F. TECH
LINDA L. WHITE		NO LICENSE	N.C. TECH

FAIRBANKS

KENT M. HERMAN	NO LICENSE	GENERAL
----------------	------------	---------

JUNEAU

DONALD M. BULLOCK JR.	NO LICENSE	H.F. TECH
ROBERT D. DEWEY	NO LICENSE	H.F. TECH
JEROME A. FRISTER	WL7BQX	N.C. TECH
JOHN O. FURUNESS	NO LICENSE	N.C. TECH
CURTIS I. HARDEN	NO LICENSE	N.C. TECH
ALEXANDER E. HAZELTON	NO LICENSE	N.C. TECH
KATHLEEN A. HOLLIDAY	NO LICENSE	N.C. TECH
STEVE E. IGNEILL	NO LICENSE	H.F. TECH
BOB D. MATTSO	NO LICENSE	H.F. TECH
SETH S. MOODY	NO LICENSE	N.C. TECH
MARION E. SIMPSON	NO LICENSE	N.C. TECH
JOHN M. STONE	NO LICENSE	H.F. TECH

NOTE (N.C. TECH=NO CODE TECHNICIAN)

(H.F. TECH=TECHNICIAN WITH H.F.

PRIVILEGES)

submitted by Roger Hansen, KL7HFQ, VEC Director)

*Happy Holidays To All
From The AARC*



AARC 1994 Budget (\$)

		<u>1993 Budget</u>	<u>1993 Actual</u>	<u>1994 Budget</u>
Income				
Advertising		200	0	100
Contributions		500	0	0
<u>Dues</u>				
Membership		3000	3945	4600
ARRL Allowance		30	0	0
Life Membership		500	0	0
Dues - Other		(3530)	15	0
Dues Total		0	3960	4600
Total Business Income		700	3960	4700
Enterprise Income				
<u>Gaming</u>				
Bingo		1000	0	0
Pull Tabs		29000	44000	34800
Winter Raffle		1000	1291	1000
Gaming Total		31000	45291	35800
Interest Income		1650	*	1000
Misc. Income		800	17	100
<u>Special Events</u>				
Banquet		50	0	0
Country Store		500	2846	2000
Ham Festival		2000	6015	3000
Other Special Events		0	0	0
Total Special Events		<u>2550</u>	<u>8861</u>	<u>5000</u>
Total Enterprise Income		<u>36000</u>	<u>54169</u>	<u>41900</u>
Total Income		<u>36700</u>	<u>58129</u>	<u>46600</u>

(*) - Total Interest Income for 1993 has not yet been determined

Expense

Advertising	1000	114	200	
ARRL Pass Through (Dues)	0	390	400	
Bank Service Charges	0	2	0	
Equipment Rental		3000	0	0
Liability Insurance		1500	0	600
Licenses	250	190	250	
Printing		(6000)	616	750
Business Postage		0	511	500
Telephone	0	1488	1500	
Office Supplies/Software/Misc		2000	231	500
Total Business Expense	1750	3542	4700	

Public Service Activities (Enterprise Activity Funded)

	<u>1993 Budget</u>	<u>1993 Actual</u>	<u>1994 Budget</u>
Contributions			
ARRL Affiliated	350	0	0
Blood Bank	1500	0	1500
Newsline	100	400	400
Scholarships	15000	32200	0
Other Contributions (To Be Determined)	0	0	16000
Total Contributions	16950	32600	17900
Emergency Service Equipment	0	2600	1000
AARC Voice Repeaters			
New Equipment Purchases	1000	947	1000
Alyeska Repeater Purchase	0	0	3500
Other Support	900	488	500
Total Voice Repeaters	1900	1435	5000
AARC Packet Repeaters/BBS			
New Equipment Purchases	1000	1210	500
KL7AA-7 P/C Replacement	0	0	2500
Software/Other	2000	409	500
Total Packet Repeaters/BBS	3000	1619	3500
Other Equipment/Non-AARC			
New Equipment Purchases	0	0	1000
Repairs	1000	390	0
Total Other Equipment	1000	390	1000
Public Education			
License Classes	1500	909	1000
VEC Testing	600	710	1000
Monthly Newsletter	6000	4341	4000
Total Public Education	8100	1619	6000
Taxes and Professional Services Related to Enterprise Activities	2000	0	3000
Enterprise Activity Expense			
Winter Raffle	600	1869	1000
Hamfest Expense	0	5862	3000
Monthly Meeting	1200	184	500
Other	300	0	0
Total Enterprise Activity Expense	<u>2100</u>	<u>7915</u>	<u>4500</u>
Total Public Service Activities	<u>35050</u>	<u>52519</u>	<u>41900</u>
Total Expenses	<u>38900</u>	<u>56061</u>	<u>46600</u>

AARC GENERAL MEETINGS are held on the first Friday evening of each month in Room 102 of the Carr-Gottstein Building on the Alaska Pacific University Campus.

The campus is located at 4101 University Drive and Bragaw Streets. Parking is available only in the lot to the northeast of the building.

The meetings begin at 7:00 PM and visitors are always welcome! The AARC legendary raffle is open to everyone.

AARC BOARD MEETINGS are held on the second Wednesday evening of each month in Room 104 of the Carr-Gottstein Building on the APU campus. The meetings begin at 7:00 PM and are open to all club members and visitors.

ANCHORAGE ARES NET

The Anchorage area Amateur Radio Emergency Services net is held each Thursday evening at 8:00 PM on the KL7ION repeater on 147.3 (+.600). Net Control is Lil Marvin, NL7DL and alternate NCS station is KL7IO. The Westlink Amateur Radio report, Swap N Shop and the Parka Net follow the ARES net on the same frequency.

THE KL7AA REPEATERS

sponsored by the club are on 146.94 (at minus .600), 224.94 (-1.600) and 444.7 (+5.000). The two meter repeater located on top of Flattop Mt. requires a 100 hz tone for access.

The satellite receiver located on Government Hill does not require a tone. The 125 cm repeater, also on Flattop Mt. and the 70 cm repeater located at the South Central Radio site do not require tone for access. The repeater trustee is William Reiter, KL7ITI. Doug Dickinson, KL7IKX, is chairman of the VHF/UHF committee.

KL7AA-7 PACKET OPERATIONS

Ports are 145.01 mhz, 147.96 mhz and 445.05 mhz at 1,200 Baud; 7108.5 khz at 300 Baud and 445.11 mhz at 9600 Baud. Remember that 147.96 mhz is normally in use as the Iceworm link to other Alaskan communities and limit use of that port to evening hours.

A landline port is available at 300-9600 Baud, V32.bis compatible; registration is required. Contact Sysop Mel Sauners, AL7PB, at 349-4372 for info, or contact Sysops Doug KL7IKX, Paul WL7BF, Jim NL7C, Merle AL7LD or Bill AL7MM.

FREE LICENSE EXAMS are held on

the first Wednesday evening of the month at 6:30PM in the Carr-Gottstein Bldg on the APU campus and on the third Wednesday evening of the month in Eagle River at 7PM in the basement of the VFW Hall.

For more information contact VEC Director, Roger Hansen, KL7HFQ at 892-6365.

For information on the Saturday VEC tests contact the South Central Radio Club or the VEC Director Roger Hansen

AARC MEMBERSHIP DUES are

\$20.00 regular, \$25.00 family and \$10.00 student. Dues are due one year from date of last payment. There is a 30 day grace period. Life memberships are available. Contact Lance Dunbar, AL7BK, (H) 337-6297 or (W) 561-5457.

Please remember that the club receives \$2.00 for each ARRL membership renewal and \$5.00 for each new ARRL membership if they are processed through the AARC.

AARC is affiliated with the ARRL.

(Continued from page 1)

suggested that the KSKA newsroom and technical workshop areas would then make an excellent location for a club station. Al promised "to keep that in mind" for when KSKA decides to move next door to KAKM.

Later that evening during the Board Meeting, Charlie Moore, NL7XE, proposed to the board that the club provide equipment for an amateur radio station at the Anchorage Senior Center. He has discussed the concept with the administrators at the Center and says we would be able to put the station in a room that is used only twice a week for blood pressure tests. His request

was for a tower, rotor, antenna, HF transceiver, VHF and UHF transceivers, and packet equipment.

Charlie's proposal would allow retired amateurs who no longer live where they can put up antennas, to use their own equipment on the air at the Senior Center. The station would be open to club members of all ages, not just amateurs who are members of the Senior Center.

The concept was discussed at length by the board and by others present at the meeting. It was decided to investigate the proposal further to see if it is practical to set up a station at the

site. Permission from the Municipality would be required for erecting a tower on top of the building and may require the use of Municipality personnel for the work (or for supervision of the work). The board was informed that we have sufficient materials on hand to build a tower support structure and to place antennas on top of the building.

The conclusion the board reached was that this proposed project could be handled in stages using a mixture of club materials (tower sections, coax, etc), personal equipment provided by amateurs using the facility, and later, equipment donated by others (including the club) as a way of holding costs down.

ANCHORAGE AMATEUR RADIO CLUB, INC.
Post Office Box 101987
Anchorage, Alaska 99510-1987

Address Correction Requested

BULK RATE
U. S. POSTAGE

PAID

Anchorage, AK
Permit 223

L036 EX0499
ROGER HANSEN
POB 520343
BIG LAKE AK 99652

KL7HFQ

SPECIAL NOTICE - Saturday Ham Testing - PLACE CHANGE
Hope Cottage Offices 540 International Airport Road Second Saturday 2:00 PM



Daniel Stevens, GRI
Direct/Mobile 244-5547

Fortune Properties, Inc.
2525 C Street, Suite 100
Anchorage, Alaska 99503
(907) 562-SOLD (7653) Fax 276-4508

THOMAS RADIO

Dealer for Kantronics TNC's/RF Concepts Amps and
Vectronics Tuners/SWR & Power Meters, Low Pass
Filters/Dry Dummy Loads and Amplifiers

Christmas Sale on KPC-3 TNC and KAM Plus TNCs
Many Items In Stock

Call 345-7837 Evenings

SPECIALIZING IN "HUD" PROPERTIES
Real Estate
Broker

FRED TOLIVER

130 W. Int'l Airport Rd., #T
Anchorage, Alaska 99518
Bus. (907) 562-4865
Res. (907) 346-2900



Independent Distributor

ACCENT ON HEALTH

WILLIAM & ELEANOR REITER
Family Health Consultants

P.O. Box 141106 • Anchorage, Alaska 99514

(907) 337-1779